

REMARKS/ARGUMENTS

Reconsideration of this patent application is respectfully requested in view of the foregoing amendments and the following remarks.

The advisory action is hereby acknowledged and appreciated.

In response to the advisory action, enclosed is a supplemental amendment which further amends the application. The amendments filed in the previous response have been considered entered.

The Examiner has rejected claims 42, 44-62, 64-89, 91 and 93-94 under 35 U.S.C. §103(a) as being unpatentable over GB 2016984A to *Berger* in view of Schach WO 2004/4028702 and in further view of GB 2174942 to *Sugiyama*.

It is respectfully submitted that the present invention as claimed in independent claims 61 and 81 93, and 94 are patentable over the above identified documents taken either singularly or in combination. For example, with the present invention as claimed in claims 61, the wire feed device includes the following features:

displacing at least one further transport element of the plurality of transport elements via the drive mechanism on at least one further side of the guiding element, thus causing the transport elements arranged in the guide path to be moved on by said at least one further transport element displaced by the drive mechanism;

In addition, the wire feed device as claimed in claim 81 includes the following:

(b) a plurality of transport elements which are successively and displaceably mounted inside of said guide path of said guiding element, wherein at least one transport element is formed as a ball;

In addition claim 93 has the following feature:

displacing at least one further transport element of the plurality of transport elements via the drive mechanism on at least one further side of the guiding element, thus causing the transport elements arranged in the guide path to be moved on by said at least one further transport element of the plurality of transport elements displaced by the drive mechanism;

Furthermore claim 94 includes the following feature:

(b) a plurality of transport elements which are successively and displaceably mounted inside of said guide path of said guiding element, wherein said at least one transport element is formed in a shape comprising at least one of: balls, rollers, oval shaped cylinders, or circular shaped cylinders;

For example, with this design there are a plurality of guiding elements 28, wherein each guiding element 28 includes a guide path 32 and a plurality of transport elements 33 in the

form of balls which are movable along a guide path 32 of each guiding element 28. Around the guiding elements, a drive sleeve 43 is arranged with internal thread adapted to the contour of the balls or transport elements 33. By rotation of the drive sleeve 43, the transport elements 33 or balls respectively are forced to move in a circulating manner within guide path 32 in the guiding elements 28. The welding wire 13 is then clamped by the circulating transport elements 33 and moved forward in the longitudinal direction of the welding wire 13. Since at least one guiding element 28 is displaceably arranged, an adaptation to the diameter of the welding wire is possible.

As suggested by the Examiner, in the advisory action, the claims have been amended to indicate that the transportation elements move in a circulating manner. For example, claim 61 has been amended to state:

wherein said transport elements move in a circulating manner within the guide path;

Claim 81 has also been amended to state:

wherein said plurality of transport elements move in a circulating manner within said guide path

Claim 93 has been amended as follows:

wherein said plurality of transport elements move in a circulating manner within the guide path.

Claim 94 has been amended as follows:

wherein said transport elements move in a circulating manner within said guide path.

This feature has been recited in paragraph 91 of the published application. Thus, it is respectfully submitted that none of the cited documents or even the combination of these documents shows a feeding method and a wire feed device which have transport elements that move in a circulating manner in a guide path.

Thus, the transport elements according to Berger, which are configured as two rollers, do not circulate, and are not displaceable along a guide groove arranged in a guiding element.

In contrast to Berger, with the present invention, the transport elements move along the guide groove or guide path.

With the above documents such as with Berger these documents include transport elements which may be rotatable but which are fixed in place. Thus, when using such feed rollers for guidance of the welding wire, as can be seen by Berger, higher friction losses can be expected.

Thus, with the present invention as claimed in claims 61, 81, 93, and 94, because the transport elements are displaceable along the guide path, this allows the welding wire to flow along the guide path without the friction losses of stationary transport elements such as shown in Berger. With Berger, the transport elements are positioned on a spindle such as a spindle 4 which holds the transport elements or rollers in a pinned but rotatable position. These transport elements do not move along, and are not displaceable along the guide groove. The Examiner cites Schach to overcome the features lacking in Berger.

However, Schach does not disclose that the transport elements are displaceable along the guide groove as claimed in claims 61, 81, 93 and 94. As stated in paragraph 16, the rollers are arranged on axes. This feature is also shown in

FIGS. 2, 4 and 5 which show these axes at different angles which pin the rollers in a single spot. This feature is entirely different from the present invention which includes transport elements that are displaceable along the guide groove.

Therefore, it is respectfully submitted that the present invention as claimed in claims 61, 81, 93, and 94 are patentable over the above identified documents taken either singularly or in combination.

The remaining dependent claims depend from either claim 61 or claim 81. Therefore, early allowance of the remaining claims is respectfully requested.

The Commissioner is hereby authorized to charge Collard & Roe, P.C.'s deposit account 03-2468 for the amount necessary for the additional claims and any other required fee.

Respectfully submitted,
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WCC:

I hereby certify that this correspondence is being
electronically filed in the U.S. Patent and Trademark Office on
February 14, 2011.

/William Collard/